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# Reform or Ruin? Proposals to Amend Section 101

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UTAH STATE BAR IP SECTION – APRIL 25, 2017

*REFORM OR RUIN?*  
*PROPOSALS TO AMEND SECTION 101*

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Jorge L. Contreras



## A. Section 101 and Patentable Subject Matter (PSM) Background

## 35 U.S. Code § 101 – Inventions Patentable

Whosoever invents or discovers any new and useful **process, machine, manufacture, or composition of matter**, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.



# Categories of Patentable Subject Mater

## Manual of Patent Examining Procedure, § 2106.I

- i. **Process** - an act, or series of acts or steps
- ii. **Machine** - a concrete thing, consisting of parts, or of certain devices and combination of devices
- iii. **Manufacture** - an article produced from raw or prepared materials by giving these materials new forms, qualities, properties, or combinations, whether by hand labor or by machinery
- iv. **Composition of Matter** - all compositions of two or more substances and all composite articles, whether they be the results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids, for example

# Judicial Exceptions to Patentable Subject Matter

- **laws of nature,**
- **mental processes,**
- **abstract ideas**

“[a] **principle, in the abstract**, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.”

*Le Roy v. Tatham*, 14 How. 156, 175 (1853)

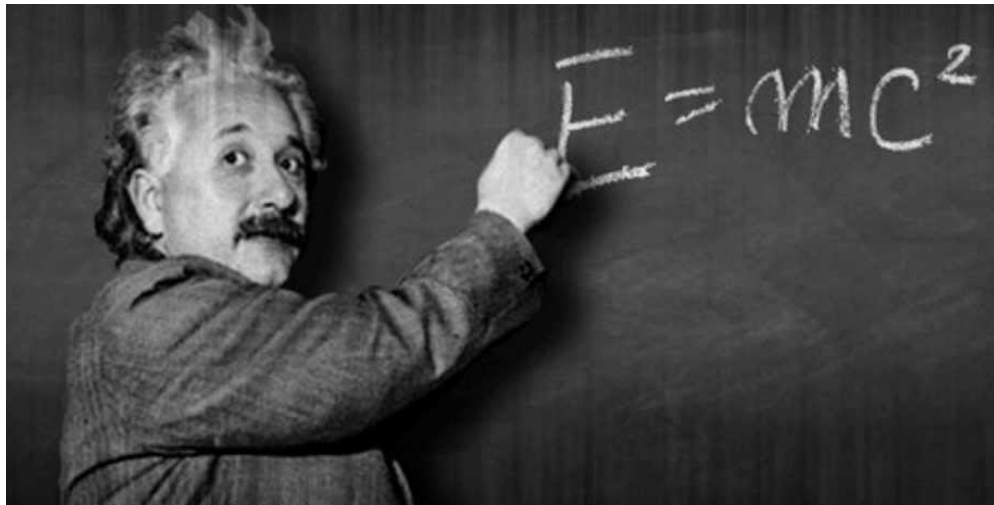
“**Phenomena of nature**, though just discovered, **mental processes**, and **abstract intellectual concepts** are not patentable, as they are the basic tools of scientific and technological work.”

*Gottschalk v. Benson*, 409 U. S. 63, 67 (1972)

# Judicial Exceptions to Patentable Subject Matter

“a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter. Likewise, Einstein could not patent his celebrated law that  $E=mc^2$ ; nor could Newton have patented the law of gravity. Such discoveries are ‘manifestations of . . . nature, free to all men and reserved exclusively to none.’”

*Diamond v. Chakrabarty*, 447 U. S. 303, 309 (1980)



## B. Recent PSM Jurisprudence and its Impact

# The Supreme Court's “Four Horsemen” of PSM

- *Bilski v. Kappos* (2010)
- *Mayo v. Prometheus* (2012)
- *AMP v. Myriad* (2013)
- *Alice v. CLS Bank* (2014)



# *Bilski v. Kappos (2010)*

Challenged business method (hedging investment risk) is an unpatentable “**abstract idea**”





# Mayo v. Prometheus (2012)

Method of adjusting drug dosage based on patient metabolite levels claims a “**law of nature**”

2-step test:

1. Is claim directed to a patent-ineligible concept, such as a law of nature,
2. if so, does claim involve any “inventive concept”?



# *AMP v. Myriad* (2013)

Human genomic DNA is unpatentable “**product of nature**”





# Alice v. CLS Bank (2014)

- Adopts *Mayo* 2-step test for all 101 determinations
- Method of effecting electronic transactions using third party escrow is ineligible as “**abstract**”



# Post-Alice CAFC PSM Cases finding eligibility

- *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (claims addressing ISP website filtering satisfied step 2 of the *Alice* analysis because of the unique ordered combination of the claim limitations).
- *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) (claims to a system that addressed a problem particular to Internet businesses by implementing unconventional computer processes were directed to patent eligible subject matter because they satisfied step 2).
- *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) (claim for “self-referential” database software was not directed to an abstract idea because the plain focus of the claims was an improvement to computer functionality itself).
- *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)
- (patents directed to processes for automated lip synchronization animation methods were not directed to patent-ineligible abstract ideas).
- *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042 (Fed. Cir. 2016) (method for producing pure cultures of mature hepatocytes sufficiently improved existing technological processes to satisfy step 2 and transform the natural phenomena into patent eligible subject matter).

# Patent eligibility case outcomes post-*Alice* (6/14-2/17)

Source: Fenwick & West LLP,  
<https://www.fenwick.com/pages/post-alice.aspx>



# Alleged Impact of *Mayo-Alice*

- **Large-scale invalidation of patents**
  - Fed Cir: 2014-15: 95% of challenged patents invalidated (19 patents)
  - PTAB 2014-15: 100% invalidated (27 petitions) (“patent death squad”)
- **Invalidation of meritorious patents** (*Ariosa v. Sequenom* (Fed. Cir. 2015))
- **Business uncertainty; declining investment in innovation**
- **Loss of edge to Europe, China**
  - Madigan & Mossoff (2017) report on 1400 patents issued in EU/CN but denied in US on 101 grounds



Has PSM turned the U.S. “gold standard” patent system to lead?



## C. Recent Proposals to Amend Section 101

# David Kappos

## Abolish Section 101

"It's time to abolish Section 101, and the reason I say that is that Europe doesn't have 101 and Asia doesn't have 101 and they seem to be doing just fine in constraining patent-eligible subject matter"

David Kappos, Fed. Cir. Judicial Conf. (Apr. 12, 2016)



David Kappos,  
Cravath, Swain & Moore  
(Director USPTO, 2009-13)



## **Eliminate judicial exceptions to 101**

“the judicial exceptions to patent eligibility, as applied, are unnecessary and overreaching”

“if what is claimed is a machine, manufacture, composition of matter, or process, or an improvement of any of these things, and if it is useful, it is an invention eligible for patenting, subject to the conditions and requirements of sections 102, 103, and 112”

AIPLA Comments to USPTO (Jan. 18, 2016)





**Exclusion only when claims preclude all practical applications of a law of nature, natural phenomenon or abstract idea**

“A claim for a useful process, machine, manufacture, or composition of matter, or any useful improvement thereof, may be denied eligibility under this section 101 on the ground that the scope of the exclusive rights under such a claim would preempt the use by others of all practical applications of a law of nature, natural phenomenon, or abstract idea. Patent eligibility under this section shall not be negated when a practical application of a law of nature, natural phenomenon, or abstract idea is the subject matter of the claims upon consideration of those claims as a whole, whereby each and every limitation of the claims shall be fully considered and none ignored”

Resolution of ABA Section of IP Law, Mar. 7, 2017



## Limited statutory exception for products of nature and mental processes

“A claimed invention is ineligible under subsection (a) if and only if the claimed invention as a whole, as understood by a person having ordinary skill in the art to which the claimed invention pertains, exists in nature independently of and prior to any human activity, or exists solely in the human mind.”

IPO Proposed Amendments to Patent Eligible Subject Matter  
Under 35 U.S.C. 101 (Feb. 7, 2017)

# Robert R. Sachs (2015)

## Tangible Result

“A claimed invention shall be presumed eligible under Section 101(a) if it produces a **concrete, tangible, and useful result** “

<http://www.bilskiblog.com/blog/2015/02/twenty-two-ways-congress-can-save-section-101.html>



Robert Sachs,  
Fenwick & West

# Robert R. Sachs (2015)

## More Definitional Fixes



Robert Sachs,  
Fenwick & West

- *Expansion*: “process” ... includes any [[new]] use of a known process, machine, system, computer, manufacture, composition of matter, or material, regardless of physical embodiment or means of implementation
- *Restriction*: A “law of nature” means an express statement of a physical, causal relationship governing the natural properties or behaviors of physical objects, and that is recognized by the relevant scientific community

# Robert R. Sachs (2015)

## Order of Precedence

“In any action involving the validity or infringement of a patent, the defenses of invalidity under Section 112, lack of novelty under Section 102, or obviousness under Section 103 shall be considered and resolved *prior to* consideration of a defense of ineligible subject matter under Section 101”



Robert Sachs,  
Fenwick & West

# Robert R. Sachs (2015)

## Bolstering the Presumption of Validity

“A patent shall be presumed valid, including but not limited to **the conditions of patentability set forth in Sections 101, 102, 103, and 112**. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity to establish such invalidity by **clear and convincing factual evidence** ”



Robert Sachs,  
Fenwick & West



# European Patent Convention

## Laundry list of patent eligible and ineligible inventions.

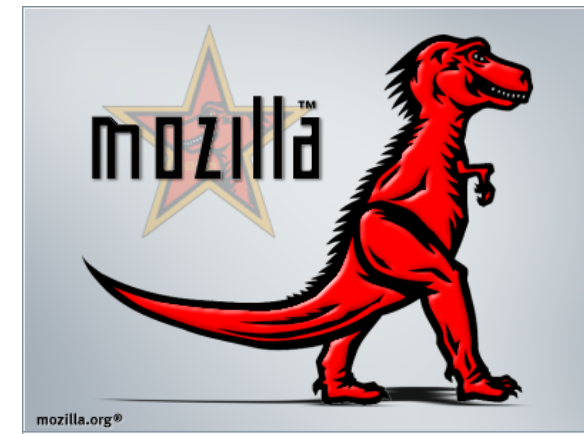
- Offers clarity
- But requires updating

(discussed in David O. Taylor, *Amending Patent Eligibility*, UC Davis L. Rev. \*47-48 (2017 forthcoming))

## No need to amend Section 101

- The software industry is as strong as ever
  - Other sections of the Act are insufficient to prevent abuse
- EFF Comments to USPTO (Jan. 18, 2017)

Also supported by:





# The Spectrum of PSM Proposals

**Abolish**

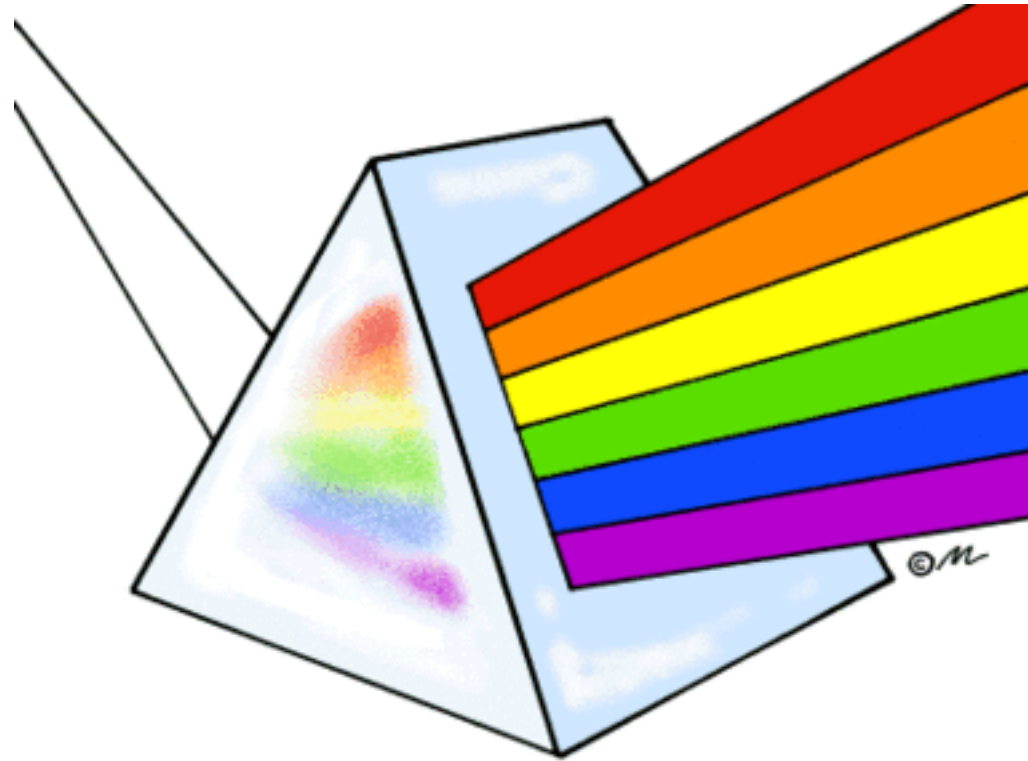
**Modify**

**Tighten**

**Loosen**

**Don't Change**

§101



# Next Steps?



# Thank you!

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